



TECHNICAL BULLETIN # TR - 13

DATE: DECEMBER 28, 1999
MODEL YEAR: 1988 AND AFTER
CHASSIS MODEL: UD1100/1200/1300/1400/1800CS
BULLETIN #: TR - 13
FILE IN THE TRANSMISSION SECTION OF THE TECHNICAL BULLETIN BINDER

AUTOMATIC TRANSMISSION OIL COOLER FLUSHING

PURPOSE

To announce the availability of an oil cooler flushing tool for all Jatco and Aisin ATM-equipped UD Trucks; and to provide proper procedures for the flushing of the ATM oil cooler core.

TOOL NOTICE

Oil Cooler Flushing Tool # J-35944-A and Adapter Fitting Kit # J-44288 have been developed in conjunction with SPX Corporation (Kent-Moore). These tools have been designated necessary tools for UD dealers. Both tools will be shipped to UD Dealers by SPX Corporation.

SERVICE NOTICE

Flushing automatic transmission oil coolers, whether in conjunction with automatic transmission repairs or normal preventative maintenance service, is a basic and fundamental requirement in all UD Trucks. Automatic transmission failures with burnt ATF or ATF fluid breakdown will generate debris and contaminants which collect in the oil cooler core. This debris and contaminants will recontaminate a new transmission and new ATF fluid as soon as the vehicle is operated and will lead to secondary transmission failures.

In the case of a simple ATF fluid change, the technician performing the oil change must determine if oil cooler flushing is required based on the condition of the removed oil and on the inspection of the debris in the oil pan.

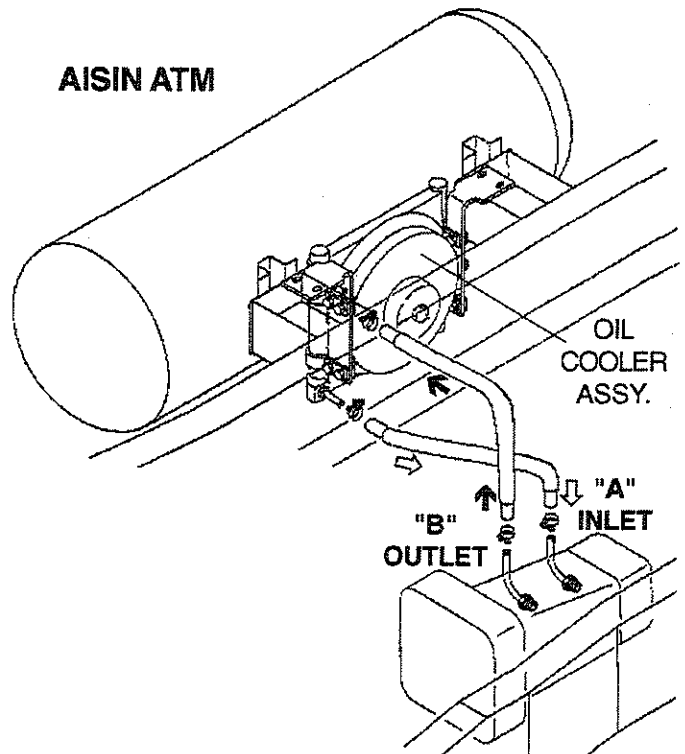
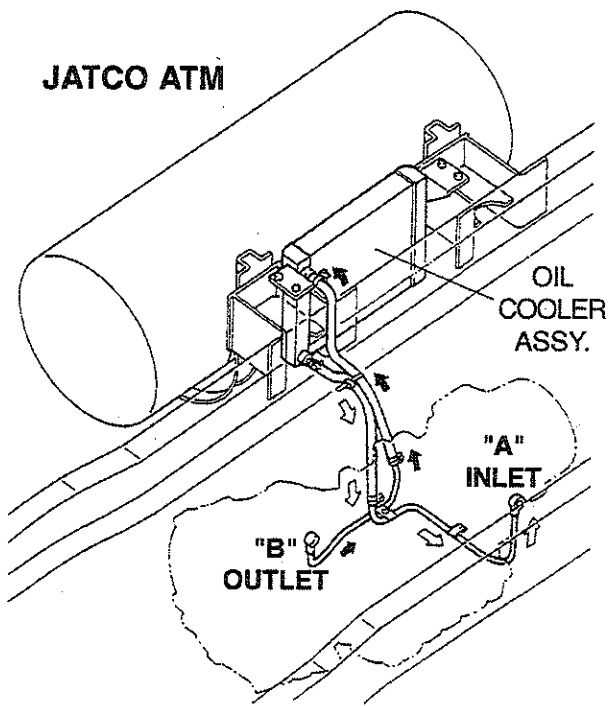
NOTE: Removing the oil pan, inspecting the bottom of the pan, cleaning the pan and magnet, and cleaning the pickup screen are all fundamental parts of an ATM oil change.

In the case of transmission rebuild or transmission replacement, oil cooler flushing is required to assure the quality of the rebuilt or replacement transmission.

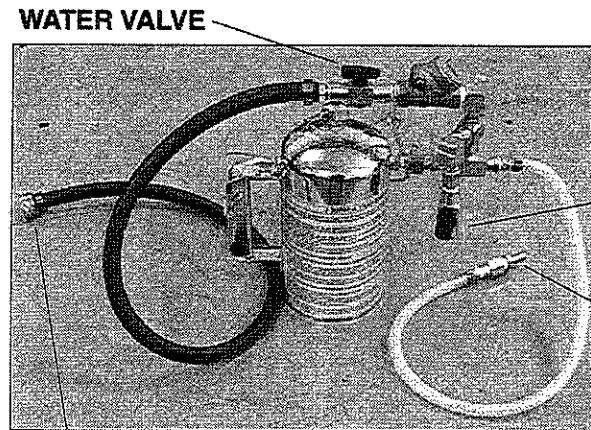
TOOL CONNECTION INSTRUCTIONS

1. Remove the brass fittings from the two clear plastic hoses provided in the oil cooler flushing tool # J-35944-A and replace the fittings with the two nipple fittings provided in the Adapter Fitting Kit tool # J-44288. Do not discard the removed fittings as these will be needed for using the flushing tool on vehicles other than UD Trucks.

2. At the automatic transmission, locate the oil cooler lines and disconnect the push-on rubber hoses from the pipe and fittings at the hose clamps. The pipe and fittings connect the rubber oil cooler lines to the transmission. Refer to the diagrams below for Jatco and Aisin oil cooler line locations.



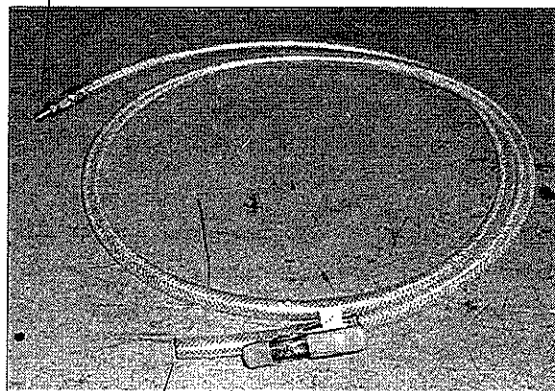
ATM OIL COOLER FLUSHER TOOL



WATER SUPPLY CONNECTION

DISCHARGE HOSE CONNECTION

DISCHARGE HOSE



Oil Cooler Flushing Procedure

1. Using the J-35944-13 measuring cup, fill the tank of the flushing tool with 21 ounces of Kent-Moore J-35944-20 Biodegradable Flushing Fluid. Do not substitute with any other fluid. Follow the handling procedures on the fluid container.
2. Secure the fill cap and pressurize the tank with shop air to 80~120 PSI. It is recommended that the air line be equipped with a water and oil filter to ensure a dry air supply.
3. Attach the discharge hose connection to the oil line labeled "A" INLET at the transmission. Attach the discharge hose drain connection to a floor drain or suitable container.
4. Attach the flushing hose connection of the flushing tool to the oil line labeled "B" OUTLET at the transmission.
5. With the water valve of the flushing tool in the OFF position, attach a garden hose to the water supply of the flushing tool and turn the water supply ON.
6. Turn the water valve of the flushing tool ON to flow water through the oil cooler for 10 seconds.

CAUTION: If water does not flow through the oil cooler core it is completely plugged and must be replaced.

7. Depress the flushing tool trigger to mix flushing fluid into the water flow. Use a clip to hold the trigger depressed.
8. While flushing with water and fluid for 2 minutes, attach shop air to the air valve on the plumbing of the tool (not the tank valve) and apply shop air (120 PSI maximum) for 5 seconds every 15~20 seconds to create a surging action.
9. Turn the water valve OFF and release the trigger. Reattach the flushing tool hoses to the oil cooler in the opposite order of the initial flush. Turn the water valve ON and repeat step 8.
10. Release the trigger and allow water only to rinse the oil cooler core for one minute.
12. Turn the water valve OFF and turn off the water supply.
13. Attach the air supply to the air valve on the plumbing of the flusher tool (not the air tank) and dry the system for 2 full minutes or longer, or until no moisture is visible in or leaving the discharge hose.

NOTICE: Residual moisture in the oil cooler core or piping can damage the ATM. If steps 12 and 13 cannot be completed at this time, or, if moisture is present, rinse the cooler core and pipes using the oil cooler flusher and ATF (instead of biodegradable fluid).